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KENNEY, JEFFREY D. CO Observations of Infrared Bright Galaxies: The Efficiency of Star Formation. *Judith s. Young, F. Peter Schloerb, Jeffrey D. Kenney, and Steven D. Lord*. **304**, 443, 58-F4 (1986)

KETO, E. R. CO Observations of Southern High-Latitude Clouds. *E. R. Keto and P. C. Myers*. **304**, 466, 59-A2 (1986)

KOHYAMA, YASUHARU. Neutrino Energy Loss in Stellar Interiors: Erratum. *Hiroharu Munakata, Yasuharu Kohyama, and Naoki Itoh*. **304**, 580, 60-C1 (1986) (Orig. paper in **296**, 197, 91-B4)

KURTZ, MICHAEL J. The Shane-Wirtanen Counts: Systematics and Two-Point Correlation Function. *Valérie de Lapparent, Michael J. Kurtz, and Margaret J. Geller*. **304**, 585, 62-C5 (1986)

LADA, C. J. High-Resolution IRAS Observations of the Rho Ophiuchi Cloud Core. *E. T. Young, C. J. Lada, and B. A. Wilking*. **304**, L45, 66-B9 (1986)

LADA, CHARLES J. Submillimeter Observations of CS in M17. *Ronald L. Snell, Neal R. Erickson, Paul F. Goldsmith, Bobby L. Ulrich, Charles J. Lada, Robert N. Martin, and Andreas Schulz*. **304**, 780, 64-F4 (1986)

LAKE, KAYLL. Development of Voids in the Thin-Wall Approximation. II. Radiation-filled Voids in a Flat Background. *Rick Pim and Kayll Lake*. **304**, 75, 54-F10 (1986)

LAMBERT, DAVID L. Isotopic Abundances of Magnesium in the Metal-poor Subgiant ν Indi. *David L. Lambert and Andrew McWilliam*. **304**, 436, 58-E11 (1986)

LAMONTAGNE, R. Spectroscopic and Polarimetric Parameters of the Runaway WN7 Binary System HD 197406: Is the Secondary an X-Ray-quiet Black Hole? *L. Drissen, R. Lamontagne, A. F. J. Moffat, P. Bastien, and M. Seguin*. **304**, 188, 56-A1 (1986)

LARSON, H. P. H₂ Spectroscopy as an Agent for Extinction Determinations: The Near-Infrared Curve for the Orion Molecular Cloud. *D. S. Davis, H. P. Larson, and R. Hofmann*. **304**, 481, 59-B10 (1986)

LAVERY, RUSSELL J. Spectroscopy of Three Butcher-Oemler Clusters of Galaxies at a Redshift of 0.2. *Russell J. Lavery and J. Patrick Henry*. **304**, L5, 61-A8 (1986)

LEBOFSKY, L. Multifrequency Observations of Blazars. II. The Variability of the 1 μ m to 2 mm Continuum. *W. K. Gear, L. M. J. Brown, E. I. Robson, E. I. Ade, M. J. Griffin, M. G. Smith, I. G. Nolt, J. V. Radostitz, G. Veeder, and L. Lebofsky*. **304**, 295, 57-B10 (1986)

LEBOFSKY, M. J. The Luminosity Function for Field Galaxies in the Infrared. *G. H. Rieke and M. J. Lebofsky*. **304**, 326, 57-D13 (1986)

LEE, H. On the Application of a Spherical Infral Model to the Local Supercluster. *H. Lee, Y. Hoffman, and C. Ftaclas*. **304**, L11, 61-A13 (1986)

LESTER, D. F. The Spatial Structure of IRC + 10216 and NGC 7027 in the Far-Infrared. *D. F. Lester, P. M. Harvey, and M. Joy*. **304**, 623, 62-G9 (1986)

LIANG, EDISON P. Gamma-Ray Burst Annihilation Lines and Neutron Star Structure. *Edison P. Liang*. **304**, 682, 63-D12 (1986)

LIEBERT, JAMES. The Palomar-Green Catalog of Ultraviolet-Excess Stellar Objects (Abstract of Paper in 1986 June Suppl.). *Richard F. Green, Maarten Schmidt, and James Liebert*. **304**, 867, 65-F5 (1986)

LIM, P. H. The New Formula for Gravitational Radiation Energy Loss: Applications to the Axisymmetric Two-Body Problem and the Binary Pulsar. *F. I. Cooperstock and P. H. Lim*. **304**, 671, 63-D1 (1986)

LEISEAU, RENÉ. The Geometry of Anisotropic CO Outflows. *René Liseau and Göran Sandell*. **304**, 459, 58-G9 (1986)

LIVIO, MARIO. Considerations Regarding a Space-Shuttle Measurement of the Gravitational Constant. *Yosi Avron and Mario Livio*. **304**, L61, 66-C13 (1986)

LORD, STEVEN D. CO Observations of Infrared Bright Galaxies: The Efficiency of Star Formation. *Judith s. Young, F. Peter Schloerb, Jeffrey D. Kenney, and Steven D. Lord*. **304**, 443, 58-F4 (1986)

LUMINET, JEAN-PIERRE. Dynamics of an Affine Star Model in a Black Hole Tidal Field (Abstract of Paper in 1986 June Suppl.). *Jean-Pierre Luminet and Brandon Carter*. **304**, 866, 65-F4 (1986)

MARASCHI, L. Variability of the BL Lacertae Objects PKS 2155 - 304 and OJ 287 in the Far-Ultraviolet. *L. Maraschi, G. Tagliaferri, E. G. Tanzi, and A. Treves*. **304**, 637, 63-A9 (1986)

MARTIN, ROBERT N. Submillimeter Observations of CS in M17. *Ronald L. Snell, Neal R. Erickson, Paul F. Goldsmith, Bobby L. Ulrich, Charles J. Lada, Robert N. Martin, and Andreas Schulz*. **304**, 780, 64-F4 (1986)

MASSAGLIA, S. The Equilibrium Structure of Thin Magnetic Flux Tubes. II. *W. Kalkofen, R. Rosner, A. Ferrari, and S. Massaglia*. **304**, 519, 59-E10 (1986)

MASSON, COLIN R. Protostellar Condensations within the Orion Ridge. *Lee C. Mundy, Nicholas Z. Scoville, Lars B. Bäth, Colin R. Masson, and David P. Woody*. **304**, L51, 66-C2 (1986)

MATILSKY, TERRY. An Intermediate-Sensitivity Survey at High Galactic Latitude with *HEAO* A-1 (Abstract of Paper in 1986 June Suppl.). *Chris R. Shrader, K. S. Wood, and Terry Matilsky.* **304**, 867, 65-F5 (1986)

MAZA, JOSÉ. ER 8: A Very Low Luminosity Degenerate Star. *Maria Teresa Ruiz, José Maza, Marina Wischnjewsky, and Luis E. González.* **304**, L25, 61-B12 (1986)

MCCAMMON, DAN. Limits on Supernova Rates and Interstellar Densities from X-Ray Observations of M101. *Donald P. Cox and Dan McCammon.* **304**, 657, 63-C1 (1986)

MCGLYNN, THOMAS A. X-Ray Studies of Galactic and Intergalactic Gas in the Pegasus I Cluster. *Claude R. Canizares, Megan E. Donahue, Ginevra Trinchieri, Gordon C. Stewart, and Thomas A. McGlynn.* **304**, 312, 57-C13 (1986)

MICHLER, ANDREW. Isotopic Abundances of Magnesium in the Metal-poor Subgiant ν Indi. *David L. Lambert and Andrew McWilliam.* **304**, 436, 58-E11 (1986)

MILONE, E. F. The O'Connell Effect Systems CX Canis Majoris, TU Crucis, AQ Monocerotis, and DQ Velorum (Abstract of Paper in 1986 June Suppl.). *E. F. Milone.* **304**, 868, 65-F6 (1986)

MIYAJI, SHIGEKI. Relaxation Oscillations of a Helium-burning Star: Helium Shell Flashes Not Triggered by the Accumulation of a Critical Mass. *Icko Iben, Jr., Masayuki Y. Fujimoto, Daichiro Sugimoto, and Shigeki Miyaji.* **304**, 217, 56-C8 (1986)

MOFFAT, A. F. J. Spectroscopic and Polarimetric Parameters of the Runaway WN7 Binary System HD 197406: Is the Secondary an X-Ray-quiet Black Hole? *L. Drissen, R. Lamontagne, A. F. J. Moffat, P. Bastien, and M. Seguin.* **304**, 188, 56-A1 (1986)

MOFFETT, THOMAS J. Observational Studies of Cepheids. IV. The Feinheit Functions. *Thomas J. Moffett and Thomas G. Barnes III.* **304**, 607, 62-F3 (1986)

MOULD, J. R. The Age of the Large Magellanic Cloud Globular Cluster NGC 1651. *J. R. Mould, G. S. Da Costa, and M. D. Crawford.* **304**, 265, 56-G3 (1986)

IRAS Observations of the Nuclear Bulge of M31. *B. T. Soifer, W. L. Rice, J. R. Mould, F. C. Gillett, M. Rowan Robinson, and H. J. Habing.* **304**, 651, 63-B9 (1986)

MUNAKATA, HIROHARU. Neutrino Energy Loss in Stellar Interiors: Erratum. *Hiroharu Munakata, Yasuharu Kohyama, and Naoki Itoh.* **304**, 580, 60-C1 (1986) (Orig. paper in **296**, 197, 91-B4)

MUNDY, LEE C. Protostellar Condensations within the Orion Ridge. *Lee C. Mundy, Nicholas Z. Scoville, Lars B. Bäth, Colin R. Masson, and David P. Woody.* **304**, L51, 66-C2 (1986)

MYERS, P. C. CO Observations of Southern High-Latitude Clouds. *E. R. Keto and P. C. Myers.* **304**, 466, 59-A2 (1986)

NAGASE, F. Orbital Elements of the Binary X-Ray Pulsar GX 301 – 2. *N. Sato, F. Nagase, N. Kawai, R. L. Kelley, S. Rappaport, and N. E. White.* **304**, 241, 56-E6 (1986)

NELSON, L. A. The Evolution of Ultrashort Period Binary Systems. *L. A. Nelson, S. A. Rappaport, and P. C. Joss.* **304**, 231, 56-D8 (1986)

NOCERA, L. Viscous Normal Modes on Coronal Inhomogeneities and Their Role as a Heating Mechanism. *R. S. Steinolfson, E. R. Priest, S. Poedts, L. Nocera, and M. Goossens.* **304**, 526, 59-F3 (1986)

NOLT, I. G. Multifrequency Observations of Blazars. II. The Variability of the 1 μ m to 2 mm Continuum. *W. K. Gear, L. M. J. Brown, E. I. Robson, E. I. Ade, M. J. Griffin, M. G. Smith, I. G. Nolt, J. V. Radostitz, G. Veeder, and L. Lebofsky.* **304**, 295, 57-B10 (1986)

NOUSEK, JOHN A. X-Ray-selected Dwarfs and the Diffuse X-Ray Background. *Jean-Pierre Caillaud, David J. Helfand, John A. Nousek, and Leo O. Takalo.* **304**, 318, 57-D5 (1986)

O'DELL, C. R. Turbulent Motion in Galactic H II Regions. *C. R. O'Dell.* **304**, 767, 64-E5 (1986)

OTTO, S. The Significance of Voids. *S. Otto, H. David Politzer, John Preskill, and Mark B. Wise.* **304**, 62, 54-E11 (1986)

PACZYŃSKI, BOHDAN. Gravitational Microlensing by the Galactic Halo. *Bohdan Paczyński.* **304**, 1, 54-A6 (1986)

PADIN, CLEM. Interpretation and Implications of Diameter and Differential Radius Observations of the 160 Minute Period Solar Oscillation. *Henry A. Hill, Jonathan Tash, and Clem Padin.* **304**, 560, 60-A9 (1986)

PALMER, PATRICK. The Brightness Distribution of OH around Comet Halley. *Imke de Pater, Patrick Palmer, and Lewis E. Snyder.* **304**, L33, 61-C6 (1986)

PARKER, E. N. Magnetic Nonequilibrium and Current Sheet Formation. *S. I. Vainshtein and E. N. Parker.* **304**, 821, 65-B9 (1986)

PARKER, LEONARD. Rapidly Rotating Neutron Star Models. *John L. Friedman, James R. Ipser, and Leonard Parker.* **304**, 115, 55-B11 (1986)

PARMAR, A. N. The Evolution of the 1984 Outburst of the Transient X-Ray Source 4U 1630 – 47. *A. N. Parmar, L. Stella, and N. E. White.* **304**, 664, 63-C8 (1986)

PASTORIZA, M. G. BV Surface Photometry of Southern Galaxies. I. NGC 4507. *T. Storchi Bergmann and M. G. Pastoriza.* **304**, 305, 57-C6 (1986)

PETRE, R. An X-Ray Survey of Hot White Dwarf Stars: Evidence for a $n(\text{He})/n(\text{H})$ versus T_{eff} Correlation. *R. Petre, H. L. Shipman, and C. R. Canizares.* **304**, 356, 57-G1 (1986)

PIM, RICK. Development of Voids in the Thin-Wall Approximation. II. Radiation-filled Voids in a Flat Background. *Rick Pim and Kayll Lake.* **304**, 75, 54-F10 (1986)

POEDTS, S. Viscous Normal Modes on Coronal Inhomogeneities and Their Role as a Heating Mechanism. *R. S. Steinolfson, E. R. Priest, S. Poedts, L. Nocera, and M. Goossens.* **304**, 526, 59-F3 (1986)

POLITZER, H. DAVID. The Significance of Voids. *S. Otto, H. David Politzer, John Preskill, and Mark B. Wise.* **304**, 62, 54-E11 (1986)

POTASH, R. I. The Linear Polarization of 3C 345 at Milliarcsecond Resolution. *J. F. C. Wardle, D. H. Roberts, R. I. Potash, and A. E. E. Rogers.* **304**, L1, 61-A4 (1986)

PRANTZOS, N. Nucleosynthesis and Evolution of Massive Stars with Mass Loss and Overshooting. *N. Prantzos, C. Doorn, M. Arnould, and C. de Loore.* **304**, 695, 63-E12 (1986)

PRESKILL, JOHN. The Significance of Voids. *S. Otto, H. David Politzer, John Preskill, and Mark B. Wise.* **304**, 62, 54-E11 (1986)

PRIEST, E. R. Viscous Normal Modes on Coronal Inhomogeneities and Their Role as a Heating Mechanism. *R. S. Steinolfson, E. R. Priest, S. Poedts, L. Nocera, and M. Goossens.* **304**, 526, 59-F3 (1986)

PRINJA, RAMAN K. Narrow Absorption Components and Variability in Ultraviolet P Cygni Profiles of Early-Type Stars (Abstract of Paper in 1986 June Suppl.). *Raman K. Prinja and Ian D. Howarth.* **304**, 867, 65-F5 (1986)

RADOSTITZ, J. V. Multifrequency Observations of Blazars. II. The Variability of the 1 μ m to 2 mm Continuum. *W. K. Gear, L. M. J. Brown, E. I. Robson, E. I. Ade, M. J. Griffin, M. G. Smith, I. G. Nolt, J. V. Radostitz, G. Veeder, and L. Lebofsky.* **304**, 295, 57-B10 (1986)

RAPPAPORT, S. Orbital Elements of the Binary X-Ray Pulsar GX 301 – 2. *N. Sato, F. Nagase, N. Kawai, R. L. Kelley, S. Rappaport, and N. E. White.* **304**, 241, 56-E6 (1986)

RAPPAPORT, S. A. The Evolution of Ultrashort Period Binary Systems. *L. A. Nelson, S. A. Rappaport, and P. C. Joss.* **304**, 231, 56-D8 (1986)

REYNOLDS, STEPHEN P. Continuum Spectra of Collimated, Ionized Stellar Winds. *Stephen P. Reynolds.* **304**, 713, 63-G5 (1986)

RICE, W. L. IRAS Observations of the Nuclear Bulge of M31. *B. T. Soifer, W. L. Rice, J. R. Mould, F. C. Gillett, M. Rowan Robinson, and H. J. Habing.* **304**, 651, 63-B9 (1986)

RICHER, HARVEY B. Deep CCD Photometry in Globular Clusters. IV. *M13, Harvey B. Richer and Gregory G. Fahlman.* **304**, 273, 57-A1 (1986)

RIEKIE, G. H. The Luminosity Function for Field Galaxies in the Infrared. *G. H. Rieke and M. J. Lebofsky.* **304**, 326, 57-D13 (1986)

ROBERTS, D. H. The Linear Polarization of 3C 345 at Milliarcsecond Resolution. *J. F. C. Wardle, D. H. Roberts, R. I. Potash, and A. E. E. Rogers.* **304**, L1, 61-A4 (1986)

ROBSON, E. I. Multifrequency Observations of Blazars. II. The Variability of the 1 μ m to 2 mm Continuum. *W. K. Gear, L. M. J. Brown, E. I. Robson, E. I. Ade, M. J. Griffin, M. G. Smith, I. G. Nolt, J. V. Radostitz, G. Veeder, and L. Lebofsky.* **304**, 295, 57-B10 (1986)

ROELLING, T. L. Simultaneous Submillimeter and Infrared Observations of Flat-Spectrum Radio Sources. *T. L. Roelling, E. E. Becklin, C. D. Impey, and M. W. Werner.* **304**, 646, 63-B4 (1986)

ROGERS, A. E. E. The Linear Polarization of 3C 345 at Milliarcsecond Resolution. *J. F. C. Wardle, D. H. Roberts, R. I. Potash, and A. E. E. Rogers.* **304**, L1, 61-A4 (1986)

ROSNER, R. The Equilibrium Structure of Thin Magnetic Flux Tubes. II. *W. Kalkofen, R. Rosner, A. Ferrari, and S. Massaglia.* **304**, 519, 59-E10 (1986)

ROWAN-ROBINSON, M. IRAS Observations of the Nuclear Bulge of M31. *B. T. Soifer, W. L. Rice, J. R. Mould, F. C. Gillett, M. Rowan Robinson, and H. J. Habing.* **304**, 651, 63-B9 (1986)

RUIZ, MARÍA TERESA. ER 8: A Very Low Luminosity Degenerate Star. *Maria Teresa Ruiz, José Maza, Marina Wischnjewsky, and Luis E. González.* **304**, L25, 61-B12 (1986)

SADAKANE, KOZO. The Abundance of Gallium in B-Type Chemically Peculiar Stars. *Masahide Takada-Hidai, Kozo Sadakane, and Jun Jugaku.* **304**, 425, 58-D14 (1986)

SAFRONOV, U. I. Measurement of Wavelengths and Lamb Shifts for Inner-Shell Transitions in Fe XVIII–XXIV. *J. F. Seely, U. Feldman, and U. I. Safronova.* **304**, 838, 65-C12 (1986)

SAHA, A. BD $-3^{\circ}2525$: A Spectroscopic Binary Subdwarf. *Jesse L. Greenstein and A. Saha*. **304**, 721, 64-A1 (1986)

SANDELL, GÖRAN. The Geometry of Anisotropic CO Outflows. *René Liseau and Göran Sandell*. **304**, 459, 58-G9 (1986)

SASLAW, WILLIAM C. Galaxy Clustering and Thermodynamics: Quasi-static Evolution of $b(t)$. *William C. Saslaw*. **304**, 11, 54-B2 (1986)

SATO, N. Orbital Elements of the Binary X-Ray Pulsar GX 301 - 2. *N. Sato, F. Nagase, N. Kawai, R. L. Kelley, S. Rappaport, and N. E. White*. **304**, 241, 56-E6 (1986)

SAVEDOFF, M. P. On the Dust Jet Model of SS 433. *H. L. Helfer and M. P. Savedoff*. **304**, 581, 62-C1 (1986)

SCHLOERB, F. PETER. CO Observations of Infrared Bright Galaxies: The Efficiency of Star Formation. *Judith S. Young, F. Peter Schloerb, Jeffrey D. Kenney, and Steven D. Lord*. **304**, 443, 58-F4 (1986)

SCHMIDT, MAARTEN. The Palomar-Green Catalog of Ultraviolet-Excess Stellar Objects (Abstract of Paper in 1986 June Suppl.). *Richard F. Green, Maarten Schmidt, and James Liebert*. **304**, 867, 65-F5 (1986)

SCHULZ, ANDREAS. Submillimeter Observations of CS in M17. *Ronald L. Snell, Neal R. Erickson, Paul F. Goldsmith, Bobby L. Ulich, Charles J. Lada, Robert N. Martin, and Andreas Schulz*. **304**, 780, 64-F4 (1986)

SCOVILLE, NICHOLAS Z. Protostellar Condensations within the Orion Ridge. *Lee C. Mundy, Nicholas Z. Scoville, Lars B. Bäth, Colin R. Masson, and David P. Woody*. **304**, L51, 66-C2 (1986)

SEAQUIST, E. R. The Origin of Cosmic Rays. I. Observations of the Spiral Galaxy NGC 3310. *Nebjosa Duric, E. R. Seaquist, Patrick C. Crane, and L. E. Davis*. **304**, 82, 54-G3 (1986)

SEELY, J. F. Measurement of Wavelengths and Lamb Shifts for Inner-Shell Transitions in Fe XVIII-XXIV. *J. F. Seely, U. Feldman, and U. I. Safronova*. **304**, 838, 65-C12 (1986)

SEGUIN, M. Spectroscopic and Polarimetric Parameters of the Runaway WN7 Binary System HD 197406: Is the Secondary an X-Ray-quiet Black Hole? *L. Drissen, R. Lamontagne, A. F. J. Moffat, P. Bastien, and M. Seguin*. **304**, 188, 56-A1 (1986)

SHAPIRO, STUART L. On the Stability of the Galactic Magnetic Field in the Presence of a Magnetic Monopole Halo. *David F. Chernoff, Stuart L. Shapiro, and Ira Wasserman*. **304**, 799, 65-A1 (1986)

SHIPMAN, H. L. An X-Ray Survey of Hot White Dwarf Stars: Evidence for a $n(\text{He})/n(\text{H})$ versus T_{eff} Correlation. *R. Petre, H. L. Shipman, and C. R. Canizares*. **304**, 356, 57-G1 (1986)

SHRADER, CHRIS R. An Intermediate-Sensitivity Survey at High Galactic Latitude with HEAO A-1 (Abstract of Paper in 1986 June Suppl.). *Chris R. Shrader, K. S. Wood, and Terry Matilsky*. **304**, 867, 65-F5 (1986)

SIMON, NORMAN R. Hydrodynamic Models of RRab Variables: Comparison of Observed and Theoretical Light Curves. *Norman R. Simon and Toshiki Iwakawa*. **304**, 249, 56-F1 (1986)

SINGH, BHUPINDER. Gravitational Instability of Thermally Anisotropic Plasma. *Bhupinder Singh and G. L. Kalra*. **304**, 6, 54-A11 (1986)

SION, E. M. Ultraviolet Observations of V471 Tauri: Evidence for a Nova-like Outburst? *F. C. Bruhweiler and E. M. Sion*. **304**, L21, 61-B8 (1986)

SMITH, GRAEME H. The Potential for Supernova-induced Chemical Enrichment of Protoglobular Cluster Clouds. *Michael A. Dopita and Graeme H. Smith*. **304**, 283, 57-A12 (1986)

SMITH, HARDING E. Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. I. The Lick Survey (Abstract of Paper in 1986 June Suppl.). *Arthur M. Wolfe, David A. Turnshek, Harding E. Smith, and Ross D. Cohen*. **304**, 866, 65-F4 (1986)

SMITH, M. G. Multifrequency Observations of Blazars. II. The Variability of the 1 μm to 2 mm Continuum. *W. K. Gear, L. M. J. Brown, E. I. Robson, E. I. Ade, M. J. Griffin, M. G. Smith, I. G. Nolt, J. V. Radostitz, G. Veeder, and L. Lebofsky*. **304**, 295, 57-B10 (1986)

SMITH, MYRON. Pulsational Mode Typing in Line-Profile Variables. VII. Commensurable Modes and Nonuniform Period Behavior in Delta Scorpii. *Myron Smith*. **304**, 728, 64-A8 (1986)

SNELL, RONALD L. Submillimeter Observations of CS in M17. *Ronald L. Snell, Neal R. Erickson, Paul F. Goldsmith, Bobby L. Ulich, Charles J. Lada, Robert N. Martin, and Andreas Schulz*. **304**, 780, 64-F4 (1986)

SNYDER, LEWIS E. The Brightness Distribution of OH around Comet Halley. *Imke de Pater, Patrick Palmer, and Lewis E. Snyder*. **304**, L33, 61-C6 (1986)

SOIFER, B. T. *IRAS* Observations of the Nuclear Bulge of M31. *B. T. Soifer, W. L. Rice, J. R. Mould, F. C. Gillett, M. Rowan Robinson, and H. J. Habing*. **304**, 651, 63-B9 (1986)

STEINOLFSON, R. S. Viscous Normal Modes on Coronal Inhomogeneities and Their Role as a Heating Mechanism. *R. S. Steinolfsen, E. R. Priest, S. Poedts, L. Nocera, and M. Goosens*. **304**, 526, 59-F3 (1986)

STELLA, L. The Evolution of the 1984 Outburst of the Transient X-Ray Source 4U 1630 - 47. *A. N. Parmar, L. Stella, and N. E. White*. **304**, 664, 63-C8 (1986)

STEWART, GORDON C. X-Ray Studies of Galactic and Intergalactic Gas in the Pegasus I Cluster. *Claude R. Canizares, Megan E. Donahue, Ginevra Trinchieri, Gordon C. Stewart, and Thomas A. McGlynn*. **304**, 312, 57-C13 (1986)

SUGIMOTO, DAICHIRO. Relaxation Oscillations of a Helium-burning Star: Helium Shell Flashes Not Triggered by the Accumulation of a Critical Mass. *Ieko Iben, Jr., Masayuki Y. Fujimoto, Daichiro Sugimoto, and Shigeki Miyaji*. **304**, 217, 56-C8 (1986)

SULENTIC, JACK W. VLA Mapping of the Region around NGC 4319. *Jack W. Sulentic*. **304**, 617, 62-F13 (1986)

SZALAY, A. S. The Statistics of Peaks of Gaussian Random Fields. *J. M. Bardeen, J. R. Bond, N. Kaiser, and A. S. Szalay*. **304**, 15, 54-B6 (1986)

TAGLIAFERRI, G. Variability of the BL Lacertae Objects PKS 2155 - 304 and OJ 287 in the Far-Ultraviolet. *L. Maraschi, G. Tagliaferri, E. G. Tanzi, and A. Treves*. **304**, 637, 63-A9 (1986)

TAKADA-HIDAI, MASAHIDE. The Abundance of Gallium in B-Type Chemically Peculiar Stars. *Masahide Takada-Hidai, Kozo Sadakane, and Jun Jugaku*. **304**, 425, 58-D14 (1986)

TAKALO, LEO O. X-Ray-selected M Dwarfs and the Diffuse X-Ray Background. *Jean-Pierre Caillaud, David J. Helfand, John A. Nousek, and Leo O. Takalo*. **304**, 318, 57-D5 (1986)

TANZI, E. G. Variability of the BL Lacertae Objects PKS 2155 - 304 and OJ 287 in the Far-Ultraviolet. *L. Maraschi, G. Tagliaferri, E. G. Tanzi, and A. Treves*. **304**, 637, 63-A9 (1986)

TASH, JONATHAN. Interpretation and Implications of Diameter and Differential Radius Observations of the 160 Minute Period Solar Oscillation. *Henry A. Hill, Jonathan Tash, and Clem Padin*. **304**, 560, 60-A9 (1986)

TESTERMAN, LARRY. Fourier Transform Spectrometer Observations of Solar Carbon Monoxide. II. Simultaneous Cospatial Measurements of the Fundamental and First-Overtone Bands, and C II K, in Quiet and Active Regions. *Thomas R. Ayres, Larry Testerman, and James W. Brault*. **304**, 542, 59-G5 (1986)

TREVES, A. Variability of the BL Lacertae Objects PKS 2155 - 304 and OJ 287 in the Far-Ultraviolet. *L. Maraschi, G. Tagliaferri, E. G. Tanzi, and A. Treves*. **304**, 637, 63-A9 (1986)

TRINCHIERI, GINEVRA. X-Ray Studies of Galactic and Intergalactic Gas in the Pegasus I Cluster. *Claude R. Canizares, Megan E. Donahue, Ginevra Trinchieri, Gordon C. Stewart, and Thomas A. McGlynn*. **304**, 312, 57-C13 (1986)

TROLAND, T. H. Detection of the OH Zeeman Effect toward Orion A. *T. H. Troland, R. M. Crutcher, and I. Kazes*. **304**, L57, 66-C9 (1986)

TURNSEK, DAVID A. Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. I. The Lick Survey (Abstract of Paper in 1986 June Suppl.). *Arthur M. Wolfe, David A. Turnshek, Harding E. Smith, and Ross D. Cohen*. **304**, 866, 65-F4 (1986)

ULICH, BOBBY L. Submillimeter Observations of CS in M17. *Ronald L. Snell, Neal R. Erickson, Paul F. Goldsmith, Bobby L. Ulich, Charles J. Lada, Robert N. Martin, and Andreas Schulz*. **304**, 780, 64-F4 (1986)

VAINSHTEIN, S. I. Magnetic Nonequilibrium and Current Sheet Formation. *S. I. Vainshtain and E. N. Parker*. **304**, 821, 65-B9 (1986)

VAN BALLEGOOIJEN, A. A. On the Surface Response of Solar Giant Cells. *A. A. van Ballegooijen*. **304**, 828, 65-C2 (1986)

VARDY, M. S. *IRAS* Low-Resolution Spectrograph Observations of Silicate and Molecular SiO Emission in Mira Variables. *M. S. Vardya, T. de Jong, and F. J. Willems*. **304**, L29, 61-C2 (1986)

VEEDER, G. Multifrequency Observations of Blazars. II. The Variability of the 1 μm to 2 mm Continuum. *W. K. Gear, L. M. J. Brown, E. I. Robson, E. I. Ade, M. J. Griffin, M. G. Smith, I. G. Nolt, J. V. Radostitz, G. Veeder, and L. Lebofsky*. **304**, 295, 57-B10 (1986)

WALBORN, NOLAN R. An O3 Star in the Small Magellanic Cloud H II Region NGC 346. *Nolan R. Walborn and J. Chris Blades*. **304**, L17, 61-B4 (1986)

WARDLE, J. F. C. The Linear Polarization of 3C 345 at Milliarcsecond Resolution. *J. F. C. Wardle, D. H. Roberts, R. I. Potash, and A. E. E. Rogers*. **304**, L1, 61-A4 (1986)

WASSERMAN, IRA. On the Stability of the Galactic Magnetic Field in the Presence of a Magnetic Monopole Halo. *David F. Chernoff, Stuart L. Shapiro, and Ira Wasserman*. **304**, 799, 65-A1 (1986)

WERNER, M. W. Simultaneous Submillimeter and Infrared Observations of Flat-Spectrum Radio Sources. *T. L. Roellig, E. E. Becklin, C. D. Impey, and M. W. Werner*. **304**, 646, 63-B4 (1986)

WHITE, N. E. Orbital Elements of the Binary X-Ray Pulsar GX 301 - 2. *N. Sato, F. Nagase, N. Kawai, R. L. Kelley, S. Rappaport, and N. E. White*. **304**, 241, 56-E6 (1986)

The Evolution of the 1984 Outburst of the Transient X-Ray Source 4U 1630 - 47. *A. N. Parmar, L. Stella, and N. E. White*. **304**, 664, 63-C8 (1986)

(1986)

WILKING, B. A. High-Resolution *IRAS* Observations of the Rho Ophiuchi Cloud Core. *E. T. Young, C. J. Lada, and B. A. Wilking*. **304**, L45, 66-B9 (1986)

WILLEMS, F. J. *IRAS* Low-Resolution Spectrograph Observations of Silicate and Molecular SiO Emission in Mira Variables. *M. S. Vardya, T. de Jong, and F. J. Willems*. **304**, L29, 61-C2 (1986)

WILLNER, S. P. The Highly Obscured Nucleus of 3C 219. *G. Fabbiano, S. P. Willner, N. P. Carleton, and M. Elvis*. **304**, L37, 66-B1 (1986)

WISCHNIEWSKY, MARINA. ER 8: A Very Low Luminosity Degenerate Star. *Maria Teresa Ruiz, José Maza, Marina Wischniewsky, and Luis E. González*. **304**, L25, 61-B12 (1986)

WISE, MARK B. The Significance of Voids. *S. Otto, H. David Politzer, John Preskill, and Mark B. Wise*. **304**, 62, 54-E11 (1986)

WOLFE, ARTHUR M. Damped Lyman-Alpha Absorption by Disk Galaxies with Large Redshifts. I. The Lick Survey (Abstract of Paper in 1986 June Suppl.). *Arthur M. Wolfe, David A. Turnshek, Harding E. Smith, and Ross D. Cohen*. **304**, 866, 65-F4 (1986)

WOOD, K. S. An Intermediate-Sensitivity Survey at High Galactic Latitude with *HEAO A-1* (Abstract of Paper in 1986 June Suppl.). *Chris R. Shrader, K. S. Wood, and Terry Matlksy*. **304**, 867, 65-F5 (1986)

WOODY, DAVID P. Protostellar Condensations within the Orion Ridge. *Lee C. Mundy, Nicholas Z. Scoville, Lars B. Bäth, Colin R. Masson, and David P. Woody*. **304**, L51, 66-C2 (1986)

WYNN-WILLIAMS, C. G. *IRAS* 04238 + 5336: A Young Reflection Nebula Surrounding a Double Star. *C. G. Wynn-Williams, J. N. Heasley, D. L. DePoy, G. J. Hill, and E. E. Becklin*. **304**, 409, 58-C12 (1986)

YOUNG, E. T. High-Resolution *IRAS* Observations of the Rho Ophiuchi Cloud Core. *E. T. Young, C. J. Lada, and B. A. Wilking*. **304**, L45, 66-B9 (1986)

YOUNG, JUDITH S. CO Observations of Infrared Bright Galaxies: The Efficiency of Star Formation. *Judith S. Young, F. Peter Schloerb, Jeffrey D. Kenney, and Steven D. Lord*. **304**, 443, 58-F4 (1986)

ZARRO, D. M. The Dependence of He I $\lambda 10830$ Absorption Strength upon X-Ray Emission in Late-Type Stars. *D. M. Zarro and H. Zirin*. **304**, 365, 57-B10 (1986)

ZINN, ROBERT. The Globular Cluster System of the Galaxy. IV. The Halo and Disk Subsystems: Erratum. *Robert Zinn*. **304**, 579, 60-B14 (1986) (Orig. paper in **293**, 424, 63-B7)

ZIRIN, H. The Dependence of He I $\lambda 10830$ Absorption Strength upon X-Ray Emission in Late-Type Stars. *D. M. Zarro and H. Zirin*. **304**, 365, 57-B10 (1986)

ZUCKERMAN, B. Carbon Monoxide Emission from Stars in the *IRAS* and *Revised AFGL* Catalogs. I. Mass Loss Driven by Radiation Pressure on Dust Grains. *B. Zuckerman and H. M. Dyck*. **304**, 394, 58-B11 (1986)

Carbon Monoxide Emission from Stars in the *IRAS* and *Revised AFGL* Catalogs. II. Massive Carbon Stars. *B. Zuckerman, H. M. Dyck, and M. J. Claussen*. **304**, 401, 58-C4 (1986)

